

CLAIMS

1. Method for extending the casting cycle in two-roll strip casting with in-line rolling of steel strip, which is rolled in at least one and preferably two successive rolling units (1, 2) of a rolling mill with changeable work rolls (5a, 5b, 6a, 6b), characterized by the fact that the work rolls (6a, 6b) of one of the rolling units (2) are changed above and below the steel strip (23) during casting.

2. Method in accordance with Claim 1, characterized by the fact that during the roll change, a greater strip thickness is produced with the work rolls (5a, 5b) of the other rolling unit (1) that is still in use than was produced before the roll change.

3. Method in accordance with Claim 1, characterized by the fact that during the roll change, the same strip thickness is temporarily produced without transition with the work rolls (5a, 5b) of the rolling unit (1) that is still in use as before the roll change, in which case the work rolls (5a, 5b) then take on the total reduction rate of the two rolling units (1, 2).

4. Method in accordance with Claim 3, characterized by the fact that the given strip thickness that is being run is controlled for the time being with the work rolls (5a, 5b) of

the rolling unit (1) that is still in use, before the work rolls (6a, 6b) that are to be changed are released.

5. Method in accordance with Claim 3 or Claim 4, characterized by the fact that during the roll change, the casting process parameters that critically affect the casting thickness, such as casting rate and/or bath level and/or heat dissipation and/or temperature of the liquid steel supply, are varied in order to support the rolling unit (1) that is still in use.

6. Installation for carrying out the method in accordance with one or more of Claims 1 to 5, whose rolling units (1, 2) are provided with work rolls (5a, 5b, 6a, 6b) that can be changed above and below the steel strip (23), characterized by the fact that the work rolls (6a, 6b) can be lifted from the steel strip (23) by lifting devices (17).

7. Installation in accordance with Claim 6, characterized by the fact that the work rolls (6a, 6b) can be lifted by the lifting devices (17) and that the rolling mill is provided with lifting rolls (24, 25) for the steel strip (23) before and after the work rolls.

8. Installation in accordance with Claim 7, characterized by the fact that the lifting rolls (24, 25) are mounted on the free ends of pivoted levers (26, 27).

9. Installation in accordance with Claim 7 or Claim 8, characterized by the fact that the upper work roll (6a) can be lifted together with its backup roll (8a).

10. Installation in accordance with one or more of Claims 6 to 9, characterized by the fact that the work rolls (6a, 6b) can be supported on guides (13, 14, 15, 16) that can move with them and/or that can be swung in and out.

11. Installation in accordance with one or more of Claims 6 to 10, characterized by the fact that the work rolls (6a, 6b) can be changed separately or in pairs.

12. Installation in accordance with Claim 11, characterized by the fact that the work rolls (6a, 6b), which can be changed in pairs, are provided with a common extraction device.

13. Installation in accordance with one or more of the preceding claims, characterized by the fact that the upper work roll can be lifted together with the upper backup roll and/or the lower work roll can be lowered together with the lower backup roll.